National Energy Savings (NES) Spreadsheet – Modifications for Regulatory Impact Analysis (RIA)

Calculations of impacts for the Regulatory Impact Analysis (RIA) were performed using a modification of the National Energy Savings (NES) spreadsheet. We describe the modifications here. Users should read the RIA and also consult the NES spreadsheet documentation prior to reading this document. Each worksheet that was modified or added is discussed below:

"Welcome NES"

A list box labeled "Incentive Type" was added to this worksheet. The user can select one of nine options (8 different incentive types, or "none"), each of which is described in detail in the RIA. If the user chooses an option here without making any changes to the "Inputs" worksheet, the assumptions used for each of the incentive options will be the same as those described in the text of the RIA.

"Inputs"

Rows 64 through 75 of this worksheet contain details of the assumptions used in each of the 8 incentive type options. Users who want to change the assumptions can change them here. Options 1,3,6,7, and 8 (Consumer Tax Credits, Consumer Rebates, Mass Government Purchases, Public/Consumer Education, and Senior/Low Income Subsidy) are each treated as though they were an incentive that lowers the retail price of a washer by the percent indicated. For example, the "Consumer Tax Credits" option assumes that there will be a tax credit equal to 15% of the retail price, and that 60% of consumers will avail themselves of this credit. This makes the average reduction in price $0.15*0.6 = 0.09$ or 9%, which is the default value listed by this option. If the user thinks there will be a 20% credit used by 80% of consumers, they can change the value to $0.2*0.8 = 0.16$ or 16% here.

Options 4 and 5, or Early Replacement With Current Technology and Early Replacement With H-Axis, rely on an "ERFactor", or early replacement factor. This is a multiplier applied to the early replacements found in the base case. For example, early replacement with current technology is assumed to be higher by 50%, or a factor of 1.5, if a program is implemented to encourage early replacements with current technology. The Erfactor for replacements with H-axis is assumed to be 1.15. Again, users can change these assumptions by entering alternative values here.

The assumptions for Option 2, Manufacturer Tax Credits, are found in the table labeled "Tax Credit Description". For the RIA, it was assumed that $30 million per manufacturer would be available for each phase of a two-tiered program, with a credit per clothes washer of $50 in Tier 1 and $100 in Tier 2. It is also assumed that, of 6 clothes washer manufacturers, 2 are already making the more efficient washers (column labeled "existing manufacturers"), and 4 are not (column labeled "new manufacturers"). From these values, the new sales and market share increases are calculated, along with the tax cost per year and annualized tax cost (the latter is converted into $1997 using the CPI for 1997 and for 2000, since the proposed tax credits are

based on $2000, but the rest of the calculations in the spreadsheet are done in $1997).

"MS Eff Level"

This is a new worksheet added for the RIA calculations, showing details of the market share of efficient clothes washers. The values in this table change depending on what choice of incentive type the user makes on the "Welcome NES" page.